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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,608	07/14/2000	Chika Honda	KOT-0014	6146
7590 08/17/2005				
Cantor Colburn LLP 55 Griffin Road South Bloomfield, CT 06002				
			EXAMINER CHURCH, CRAIG E	
			ART UNIT 2882	PAPER NUMBER
DATE MAILED: 08/17/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

A

Office Action Summary	Application No. 09/616,608	Applicant(s) HONDA ET AL.	
	Examiner Craig E. Church	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,6-11 and 26-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,6-11,26-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5, 6, 8-11, 26-28 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkins (6212254). Wilkins teaches a method of edge enhancement imaging comprising

using an x-ray tube having a focal spot size of 100 microns (.1 mm, lines 44-47 of column 8;

setting the source-to-object distance at 700 mm (lines 35-36 of column 8);

setting the detector-to-object distance at 700 mm (lines 35-36 of column 8);

setting the x-ray tube energy at 40 Kev;

these parameters being within the ranges recited in the claims. Lines 10-13 of column 9 explain that the detector may be x-ray film or a high resolution CCD sensor. Lines 13-15 of column 9 teach use of phase contrast imaging for clinical applications, and it would have been obvious to employ Wilkin's method for mammography since it excels at showing soft tissue boundaries.

Claims 7 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkins as above in view of Wolbarst. Wilkins does not mention a molybdenum target, but Wolbarst teaches that mammography typically employs molybdenum target x-ray tubes, and it would have been obvious to use one in the Wilkin's method because its emission spectrum enhances soft tissue imaging.

Applicant's arguments filed May 23, 2005 have been fully considered but they are not persuasive. While Wilkins observes that a .1 mm source would yield less than optimum images in the examples shown in figures 4 and 5 (because the boundary being imaged is only 10 μ), he nonetheless explains that a source size of 100 μ (.1 mm) may be employed, and contrary to applicant's belief that Wilkins teaches away from the claimed limitation, it is well settled that a reference must be considered for all that it teaches including nonpreferred embodiments. See for example

In re Meinhardt, 192F. 2d 273, 157 USPQ 270

In re Azorlosa, 241 F. 2d 939, 113 USPQ 156

In re Mills & Palmer, 470 F. 2d 649, 176 USPQ 196.

Thus applicant's position that Wilkins teaches away from the claimed invention is specious.

Furthermore, Wilkins' comment in lines 44-47 of column 8 regarding a focus diameter of 0.1 mm refers to both the figure 4 and figure 5 examples and not just to figure 4 as argued by applicant, and the instant claims read on this configuration of a source size of .1 mm, SOD = 700 mm and OID = 700 mm.


Applicant's request that this action not be made final is not understood. Wilkins was not first cited in this action but rather was first cited in the Office action of 3/22/05 to which applicant has responded.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Examiner Church at telephone number (571) 272-2488.

A handwritten signature in black ink that reads "Craig E. Church". The signature is written in a cursive, flowing style.

**Craig E. Church
Senior Examiner
Art Unit 2882**